

# NREBP (C-10): sc-398508

## BACKGROUND

NREBP (negative regulatory element-binding protein), also known as SON, SON3, BASS1 or DBP-5, is a 2,426 amino acid nuclear speckle protein that is widely expressed, with highest expression in leukocyte and heart. NREBP binds to a specific DNA sequence upstream of the regulatory sequence of the core promoter and second enhancer of human hepatitis B virus (HBV). Through this binding, NREBP represses HBV core promoter activity, transcription of HBV genes and production of HBV virions. NREBP has sequence similarities with other DNA-binding structural proteins such as gallin, Mos and oncoproteins of the Myc family. NREBP may be involved in protecting cells from apoptosis and in pre-mRNA splicing. Ten isoforms exist due to alternative splicing events.

## CHROMOSOMAL LOCATION

Genetic locus: SON (human) mapping to 21q22.11.

## SOURCE

NREBP (C-10) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of NREBP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NREBP (C-10) is available conjugated to agarose (sc-398508 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398508 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398508 PE), fluorescein (sc-398508 FITC), Alexa Fluor® 488 (sc-398508 AF488), Alexa Fluor® 546 (sc-398508 AF546), Alexa Fluor® 594 (sc-398508 AF594) or Alexa Fluor® 647 (sc-398508 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398508 AF680) or Alexa Fluor® 790 (sc-398508 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

NREBP (C-10) is recommended for detection of NREBP of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NREBP siRNA (h): sc-91455, NREBP shRNA Plasmid (h): sc-91455-SH and NREBP shRNA (h) Lentiviral Particles: sc-91455-V.

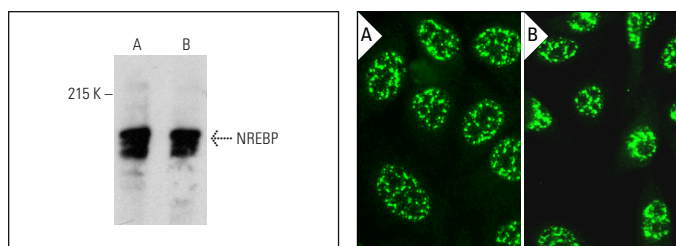
Molecular Weight of NREBP: 264 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182 or THP-1 cell lysate: sc-2238.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



NREBP (C-10): sc-398508. Western blot analysis of NREBP expression in THP-1 (A) and AML-193 (B) whole cell lysates.

NREBP (C-10): sc-398508. Immunofluorescence staining of methanol-fixed HeLa (A) and SW480 (B) cells showing nuclear speckle localization.

## SELECT PRODUCT CITATIONS

- Herdlevaer, I., et al. 2020. Localization of CDR2L and CDR2 in paraneoplastic cerebellar degeneration. *Ann. Clin. Transl. Neurol.* 7: 2231-2242.
- Ilik, I.A., et al. 2020. SON and SRRM2 are essential for nuclear speckle formation. *Elife* 9: e60579.
- Gregory, D.J., et al. 2020. SON DNA-binding protein mediates macrophage autophagy and responses to intracellular infection. *FEBS Lett.* 594: 2782-2799.
- Kim, C.H., et al. 2021. NSrp70 is a lymphocyte-essential splicing factor that controls thymocyte development. *Nucleic Acids Res.* 49: 5760-5778.
- Zhang, Q., et al. 2021. Nuclear speckle specific hnRNP D-like prevents age- and AD-related cognitive decline by modulating RNA splicing. *Mol. Neurodegener.* 16: 66.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.